

Pre-implantation genetic testing (PGT) information form (EN)

Link explanation video PGT (in Dutch, English subtitles): <https://www.pgt nederland.nl/wat-is-pgt>

Transcribed version of the tutorial video, with thanks to [pgt nederland.nl](https://www.pgt nederland.nl)

PGT is a way of making sure that a severe genetic disorder is not passed on to a child. PGT is for couples who have a much higher risk of having a child with a severe genetic disorder. In-vitro fertilisation (IVF) or test-tube conception- is necessary if you want to use PGT. In IVF treatment, an egg is fertilised by sperm of the partner in the laboratory.

In the consultation we will talk about your family history, explain the steps in a PGT procedure and discuss whether there are other ways of having a healthy child. We will also tell you where you can have the PGT and IVF treatments, and what the costs are. Nearly all health insurers in the Netherlands reimburse the costs under the basic health insurance policy, though the policy excess applies.

To be eligible for PGT, couples have to meet certain conditions.

- There must be a severe genetic disorder involved, with a high risk that a child would be born with it.
- It must also be possible to develop a genetic test to analyse the embryo.
- And finally, both the woman and the man must meet the conditions for IVF.

If no problems emerge from the intake interview, the next step is the preparatory genetic test.

During this test, blood samples are taken from both of you and often from family members. The samples are tested for the specific genetic disorder. This information is used to develop a test for analysing the embryos. The preparatory genetic test can take from 3 months to as long as 18 months. There is also a preparatory gynaecological test. The gynaecologist or IVF doctor checks whether the ovaries are capable of producing enough eggs for IVF treatment. The ovarian function varies from one woman to another and declines with age. The woman has an internal examination and an ultrasound scan of the ovaries. A hormone test is also carried out. You will both have blood tests to find out whether particular infectious diseases are present. Once all the preparations are finished, the PGT procedure can start.

There are 4 steps to PGT:

1. IVF interview
2. IVF treatment
3. PGT analysis of the embryos
4. Transfer of a healthy embryo.

In the IVF interview, medical staff will discuss with you the different steps of the treatment and which medications the woman needs to take and when. They will also explain how you can easily give yourself the necessary hormone injections. These injections help the eggs to mature. During this time, you'll need to go to the hospital for regular checks. In the treatment, you'll have several ultrasound scans to monitor the maturity of the eggs. Sometimes, despite or because of the stimulation of the ovaries, too few or too many eggs reach maturity. In either case, the treatment cannot be continued. If there are enough eggs, usually after 10 to 15 days, they will be harvested. This is done with pain relief or under sedation and takes around 15 to 30 minutes. The woman's eggs are fertilised by combining them with the man's sperm in the laboratory. After fertilisation, the eggs begin to multiply and they are then called embryos. Once the embryos are large enough, after 3 to 5 days, we will take one or more cells from each embryo for analysis. This is called a biopsy.

In the PGT analysis, we test the cells from the biopsy for the severe genetic disorder. This analysis shows which embryos do not have the severe genetic disorder. These embryos can be considered for transfer into the womb. The PGT procedure is 95 to 98% reliable. In other words, the risk of giving birth to a child affected by the disorder is 2 to 5 out of 100. If you become pregnant following PGT, a prenatal test may be carried out to check the PGT diagnosis. A chorionic villus sampling test can be done in the 11th week. Amniocentesis might be carried out during the 16th week. Finally, during weeks 18 to 20, you will have an extensive ultrasound scan. In the Netherlands, a couple can have 3 PGT treatment cycles reimbursed. On average, 40 to 50 per cent of couples succeed in achieving a pregnancy and giving birth to a healthy child within 3 treatment cycles. [1]

Abbreviations

IVF (In vitro fertilization): A treatment where eggs are fertilized by sperm outside the body to create an embryo. [2]

ICSI (Intracytoplasmic sperm injection): A technique where a single sperm is injected directly into an egg to help fertilization. [2]

PGT (Preimplantation genetic testing): A test that checks embryos for specific genetic conditions before they are placed in the womb.[1]

Reference

1. Wat is PGT? (2025). PGT Nederland. Retrieved on 10 June 2025, from <https://www.pgtnederland.nl/wat-is-pgt>
2. Umcu. (2025). IVF en ICSI. UMC Utrecht. Retrieved on 25 november 2025, from <https://www.umcutrecht.nl/nl/invitro-fertilisatie-ivf-en-intra-cytoplasmatische-sperma-injectie-icsi>